

SECTION 11 50 00

EDUCATIONAL EQUIPMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Educational Equipment:
 - 1. Electric ceramic pottery kiln.
 - 2. Swing hoist ring.
 - 3. Interactive Whiteboards (“Smartboards”)
 - 4. Wall mounted TV monitors

1.02 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in (National Fire Protection Association) NFPA 70 by a qualified testing agency, and marked for intended location and application.
- B. Space constructed and provided for placement and use of kilns must meet all requirements of the “Guidelines for the Installation and Use of Kilns in Elementary and K-8 Schools” , July 1, 2006 from Denver Fire Department and Denver Public Schools Risk Management.

PART 2 PRODUCTS

2.01 FABRICATION

- A. Electric Ceramic Pottery Kiln:
 - 1. General: SKUTT 1227-3-PK, 10-sided top-loading electric-fired stainless-steel-clad fire-brick pottery kiln with stand.
 - a) Fire-Brick: Type K23, 3 inch thickness.
 - i) Brick Coating: Manufacturer’s standard reflective penetrating fused dusting and deterioration preventative coating.
 - b) Sections: 3, stainless-steel-clad, 9 inches high.
 - i) Heating Elements: Standard type, 2 per section.
 - ii) Viewports: 2 per section. Provide viewport plugs.
 - c) Lid: Fire-Brick lined, stainless-steel-clad.
 - i) Hinge: Stainless-steel, spring-loaded.
 - d) Thermocouples: Type K, 8 gage, with ceramic protection tubes.
 - e) Control Panel: Exterior-mounted, double-insulated from firing chamber.
 - f) Controls: Programmable, with constant and variable firing capability.
 - g) Firing Chamber Volume: Minimum 4.5 cu. ft.
 - h) Downdraft Ventilation System:
 - i) EnviroVent 2 negative pressure venting system.
 - UL Listed, 115V, 1.4 Amps, 140 CFM
 - Blower motor with six (6) ft. power cord and in-line switch

- 8 x 12 inch mounting plate.
 - Eight (8) ft. x three (3) inch flexible aluminum duct.
 - Spring-loaded plenum cup assembly.
 - Blower inlet tube.
 - Blower discharge tube.
 - Plenum spring.
 - Three (3) to four (4) inch connector.
 - Floor mounting plate.
 - Mounting hardware.
- ii) System fits a single top-loading, multi-sided, electric kiln with a chamber size less than 12 cubic feet. Provide a dual intake kit to vent a single kiln over 12 cubic feet or two (2) kilns with chamber volumes each under 12 cubic feet. Maximum chamber volume that can be vented with one (1) motor is 24 cubic feet.
- iii) Electrical Switching Device: SKUTT “EnviroLink” electrical switching device utilizing a programmable power output in the controller to turn the downdraft ventilation system on and off.
- i) Stand: Multi-bend steel, 0.075 inch (14 gage) thickness.
- i) Legs: Bolt-on type with protective feet.
- j) Accessories: Furniture kit. Include the following:
- i) Shelves: (1) full 1 inch thick shelf and (4) 1 inch thick half-shelves
- ii) Cordite Posts: 18 posts, 3 each of 1, 2, 3, 4, 5, and 6 inch heights.
- iii) Heat-resistant gloves.
2. Basis-of-Design Product: Provide SKUTT 1227-3-PK, no substitutions.
- B. Swing Hoist Ring
1. Steel hoist ring with swing and swivel assembly.
- a) Basis-of-Design Product: Provide Jergens Industrial Supply; JERG-23413, or comparable product acceptable to Architect.
- C. Interactive Whiteboard
1. EPSON 90”/96” Interactive Whiteboard (or current product recommended by DPS Department of Technology Services).
- a) Size and Locations: As indicated on Drawings.
- D. Wall mounted TV monitor
1. SHARP 55” HD TV monitor (or current product recommended by DPS Department of Technology Services).
- a) Size and Locations: As indicated on Drawings.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify proper surface backing for anchoring equipment.
- B. Examine electrical connection to verify actual location and outlet configuration before equipment installation.

- C. Notify the Architect in writing of conditions detrimental to proper completion of the work. Do not proceed with work until unsatisfactory conditions have been corrected.
- D. Proceed with installation only after unsatisfactory conditions have been corrected

3.02 PREPARATION – DOWNDRAFT VENTILATION SYSTEM

- A. Ensure that kiln stand is a minimum of eight (8) inches high. If stand is lower than eight (8) inches high, either shim legs to increase distance from floor to eight (8) inches or replace stand with one (1) that is eight (8) inches high.
- B. If kiln does not have factory drilled holes, provide number, size of holes as recommended by the manufacturer for the specific kiln model. Locate holes in accordance with manufacturer’s recommendations.

3.03 INSTALLATION - GENERAL

- A. Install in strict accordance with manufacturer’s written installation instructions and recommendations. Coordinate installation with adjacent work to ensure proper clearances.
- B. Install units in final locations after finishes have been completed in each area. Verify that clearances are adequate to properly operate equipment.
- C. Set units level, plumb, properly aligned, and securely in place..
- D. Verify that accessories required have been furnished and installed.
- E. Remove packing material and leave unit in clean condition, ready for operation.
- F. Utilities: Refer to Division 26 for electrical requirements.

3.04 INSTALLATION – DOWNDRAFT VENTILATION SYSTEM

- A. Assemble and install system components on kiln in accordance with manufacturer’s written instructions.
- B. Install the blower and motor assembly on the wall in a location that is close enough for the flexible aluminum duct to reach the kiln without overstretching the duct. Where wall-mounting is not possible, mount the vent motor on the floor or above the ceiling..

3.05 CLEANING, ADJUSTING, & PROTECTION

- A. Test each component of kiln to verify proper operation. Make necessary adjustments.
- B. Verify that accessories required have been furnished and installed.
- C. Remove packing material and leave unit in clean condition, ready for operation.

3.06 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner’s personnel to adjust, operate, and maintain ceramic pottery kiln.

END OF SECTION-11 50 00